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(74) Agent: KILIARIDIS, Constantin; Bugnion S.A., Case postale 375, CH-1211 Genève 12 (CH).

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(71) Applicant (*for all designated States except US*): UNIVERSITY OF LAUSANNE [CH/CH]; Rue de Bugnon 21, CH-1005 Lausanne (CH).

(72) Inventor; and

(75) Inventor/Applicant (*for US only*): BONNY, Christophe [CH/CH]; 5, rue du Docteur Yersin, CH-1110 Morges (CH).

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(54) Title: CELL-PERMEABLE PEPTIDE INHIBITORS OF THE JNK SIGNAL TRANSDUCTION PATHWAY

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| S | V | S | V | G | M | K | P | S | P | R | P | 26 | (SEQ ID NO: 7) |
| S | V | S | V | G | K | N | P | S | P | R | H | 2 | (SEQ ID NO: 8) |
| T | Q | P | M | M | A | P | P | S | P | R | Q | 1 | (SEQ ID NO: 9) |
| L | D | S | L | C | H | P | Q | S | P | R | P | 1 | (SEQ ID NO: 10) |
| H | P | F | L | V | S | S | S | P | R | P | 1 | (SEQ ID NO: 11) | |
| | | | | G | Q | P | F | F | S | P | F | 1 | (SEQ ID NO: 12) |
| P | P | S | N | L | I | P | P | T | L | R | | 1 | (SEQ ID NO: 13) |
| | | | | | | S | P | P | S | N | L | 1 | (SEQ ID NO: 14) |
| F | N | P | W | S | S | K | P | S | L | L | | 1 | (SEQ ID NO: 15) |
| N | A | S | V | G | N | D | H | S | H | S | H | 1 | (SEQ ID NO: 16) |
| E | H | M | A | L | T | Y | P | F | R | P | | 1 | (SEQ ID NO: 17) |
| Consensus S x S _P V G _L x P P S P R P 37 (SEQ ID NO: 2) | | | | | | | | | | | | | |
| αSH3 S V S V G M P P S P R P (SEQ ID NO: 1) | | | | | | | | | | | | | |
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(57) Abstract: The invention provides cell-permeable peptides that selectively block the branch of the JNK signaling pathway controlled by the islet-brain (IB) proteins. The provided cell-permeable peptides block the binding of intermediate kinases in the c-Jun amino terminal kinase (JNK) signaling pathway, thereby decreasing the downstream effects of c-Jun amino terminal kinase (JNK).